REMARKS

This is in response to the Official Action currently outstanding with respect to the above-identified application, which Official Action the Examiner has designated as being FINAL.

Claims 1, 2 and 7-9 were present in this application as of the time of the issuance of the currently outstanding non-final Official Action. Claims 1, 2 and 7-9 currently stand rejected by the Examiner. By the foregoing Amendment, Applicants have amended Claims 1, 2 and 7-9 for clarity of expression only. Applicants by the foregoing Amendment do not propose the cancellation, addition or withdrawal of any claims. Accordingly, upon the entry of the foregoing Amendment, Claims 1, 2 and 7-9 as hereinabove amended will constitute the claims under active prosecution in this application.

The foregoing Amendment sets forth the wording of all of the claims currently pending in this application as it will stand upon the entry of this Amendment as required by the Rules.

More specifically, it is noted that in the currently outstanding Official Action, the Examiner has:

1. Re-acknowledged Applicants' claim for foreign priority under 35 USC §119(a)-(d), and reconfirmed that the required certified copies of the priority document have been received by the United States Patent and Trademark Office.

2. Re-acknowledged the acceptability of the drawings as filed with this application on 21 February 2001.

3. Rejected claims 1, 2, 7 and 8 under 35 USC §102(b) as being anticipated by Beaudet (US Patent 5,511,150); and

4. Rejected claim 9 under 35 USC §103(a) as being unpatentable over Beaudet Brown (US Patent No. 5,327,487).

Further comment in these Remarks regarding items 1-2 above is not deemed to be necessary in these Remarks.

With respect to items 3 and 4 above, Applicant appreciates the Examiner's thorough examination of the subject application. However, Applicants disagree with the Examiner's stated grounds for the rejection of the claims of this application. Accordingly, Applicants respectfully *traverse* the Examiner's currently outstanding rejections of the claims of this application and respectfully request reconsideration of the subject application based on the foregoing amendments and the following remarks.

In support of the foregoing traversal of the Examiner's currently outstanding rejection of the claims of this application, Applicants respectfully again submit that the Examiner has misinterpreted disclosures and teachings of the Beaudet reference.

Summarily stated, the present invention includes the features of displaying the time until it becomes possible to commence an interrupt job that interrupts a currently ongoing processed job after the receipt of an interruption instruction, and once the interrupting job is started, displaying the time until the completion of the interrupting job. Applicants respectfully submit, on the other hand, that the Beaudet reference relied upon by the Examiner discloses the carrying out of processing in a manner that does not interrupt an ongoing print job by the allowance of the concurrent read in and processing of input information from a scanner while a currently ongoing print job is in progress. In this regard, Applicants agree that the Beaudet reference at Column 9, lines 5 to 20 broadly indicates that the time until the completion of the currently ongoing print job or the time until the completion of the currently ongoing distinct portion (such as the current set of a plurality of sets that make up the entire ongoing print job) may be displayed by apparatus disclosed by the reference device at various times.

However, Applicants respectfully submit that it must also be understood that the Beaudet reference is predicated upon the concept of a "print job interrupt mode" of operation (see Beaudet, Fig. 4J) wherein the interrupting job cannot be carried out until the current job (or at least the currently ongoing distinct portion thereof) is completed. In this regard, Applicants also respectfully submit that the Beaudet "print job interrupt mode" does not designate a mode in which the currently ongoing job is immediately interrupted, but rather signifies a state of waiting in the sense of an interrupting job being fully loaded into a memory and held until a time reserved for its printing either after the currently ongoing job or after a distinct portion thereof has been completed. Further, Applicants respectfully submit that contrary to the Examiner's interpretation the Beaudet reference fails to disclose a display of the time until the completion of a designated interrupting job once such an interrupting job has been started as in the present invention.

Accordingly, Applicants respectfully submit that the following points should be particularly recognized.

1. Beaudet discloses that a print job may be input from the outside in parallel with (without discontinuing) the continued processing of another ongoing print job; that the time to completion of the currently ongoing print job (or a distinct portion thereof) may be displayed; and that the job entered in parallel with the currently ongoing job be made to interrupt the currently ongoing job only under certain defined circumstances.

2. In the present invention, an interrupting print job can be made to temporarily interrupt an ongoing print job at specific times during the ongoing job, and the time until such a potential interrupting time is displayed during the ongoing processing of the current job such that an interrupting user is provided with a clear indication of the wait time that will be required prior to the initiation of his requested interruption. Thus, the present invention may be thought of as an effective technique related to user interfaces concerning the processing of interrupting jobs. Specifically, when viewed from a user perspective, the following features of the invention become clear.

    If a request for interruption is made during the processing of an ongoing job, the waiting time until the initiation of the interrupting job is displayed to the potential user. Thus, to an "interrupter", the waiting time until his job can be started is displayed to him.

    Subsequently, once the interrupting job is processed into the device and the interruption of the ongoing job is commenced, the "interrupter" is provided with a display of how long it will take for the completion of the interrupting job, and by the same means the "interruptee" is provided with a display of how long the continued processing of his job will be delayed.

    Beaudet, however, while disclosing a system wherein there are a set times established for the reception and acceptance of interrupting requests during its operation, and that the currently ongoing job can be temporarily discontinued after the receipt of an interruption request at a time displayed to a user, ***never discloses, teaches or suggests that in the case of an allowed interruption the time until the completion of that interruption is displayed.***

Despite the foregoing, the Examiner now has clearly indicated that his interpretation of the Beaudet reference is predicated upon the following example that Applicants respectfully submit *erroneously characterizes* the teachings of the Beaudet reference:

> Copy printing job A is currently printed *(printing??)*and displaying Fig. 4I,
> (Column 9, lines 5-15 and 60-78). The display of Fig. 4I during
> printing of copying job A is now referred to as display A. After
> copying job A is finished, the system go *(goes??)*to subroutine X, Fig. 3F,
> Column 9, lines 10-20, and the fixed time (TP) is set to 0 (Column
> 9, lines 13-15), subroutine X will lead to the display of Fig. 4D
> which allowed *(allows??)* the next interrupt copy job B to be entered, which
> will lead to the display of Fig. 4I during printing of copy printing
> job B (Column 9, lines 1-15). The display of 4I for interrupt copy
> printing job B is now referred to as display B.

Applicants respectfully submit that the Examiner's erroneous interpretation of the Beaudet reference begins at the point in the foregoing example at which he sets the fixed time period in the X subroutine to 0 and alleges that the display reverts back to that of Fig. 4D *as associated with the interrupting job.* Applicants respectfully submit that this simply is not the case.

In fact, Applicants respectfully submit the Beaudet reference never discloses the display of a display similar to that of Fig. 4D with respect to the interrupting job at all. Further, Applicants respectfully submit that as is shown in Beaudet's Fig. 3F, it is only at a time that an interrupting job is affirmatively started as a copying job during a time period TP having a positive length in Subroutine X (see Beaudet,at Figs. 3D and 3F) that an interrupting job can ever be started in the Beaudet reference at all. Thus, Applicants respectfully submit that in Beaudet if (1) the original printing job is affirmatively resumed, (2) TP is set to zero or (3) TP is allowed to time out without the restart of the original job or the start of an interrupting job in the Beaudet Subroutine X, the system reverts back to printing the original copy printing job (designated "A" in the Examiner's example) that was made the subject of an interruption request by the pressing the soft key "Interrupt Print Job" in Fig. 4C or 4D and printing of the copy printing job A is resumed.

In other words, since no interrupting print copy job (designated "B" in the Examiner's example) can be started within the time period TP provided by the subroutine X (Fig. 3F) when TP is set to zero, the system reverts back to the printing job that was interrupted for the purpose of allowing an interrupting printing job to be initiated. In this respect, Applicants respectfully submit that it should be noted that *the affirmative job resume and the time out of TP in the X subroutine (Beaudet Fig. 3F) both output to the same line.*

Therefore, since in the Examiner's example no interrupting printing job could be initiated during the time period allowed therefor, i.e., TP = 0 , the original copy printing job is resumed and the interrupting job never starts. In particular, the only way for an interrupting job to interrupt the copy printing job designated as "A" in the Examiner's example would be for the soft key in Figs. 4C or 4D to again be pressed after the original job "A" is resumed, for the time period in the subroutine X to be increased to some positive value and for the interrupting job to be affirmatively commenced during that positive value time period.

In the latter regard, Applicants respectfully also note that even when an interrupting copy printing job is being printed, the display referred to by the Examiner does not revert to that of Fig. 4D or 4I (for the job "B") but rather assumes the display shown in Fig. 4J (associated with the job "A") until such time as that original copy print job is resumed. Specifically, in Beaudet when an interrupting job is started in the subroutine X (Fig. 3F), the system moves to the logic flow diagram shown in Beaudet Fig. 3D at D. During the logic flow shown in Fig. 3D of Beaudet, the pre-stored interrupting job is downloaded, transmitted to the copier and printed. Thereafter, a delay time is created during which the system can be maintained in the copier mode rather than returning to start C (Fig. 3A). In the job interrupt situation presently under discussion, however,, the copier mode is maintained so as to allow the system to return to the printing of the original job after the completion of the interrupting job (Beaudet, Column 8 lines 1-5). Thus, during the printing of one or more interrupting jobs, the display referred to by the Examiner displays display 4J as it relates to the **interrupted job (i.e., job "A" of the Examiner's example)**, not the interrupting job (job "B" of the Examiner's example).

In view of the foregoing disagreement regarding the correct interpretation of the Beaudet reference between the Applicants and the Examiner, perhaps the best way to definitively demonstrate the error in the Examiner's analysis is to apply the wording of Beaudet, Column 9, lines 1-15 to the drawings of that reference. Thus, it will be seen with reference to Fig. 3B2 that as is stated by Beaudet at Column 9 lines 1-12:

> In lieu of waiting for the current printer job to be over
> *(i.e., totally completed)* before the copier printer is
> returned to its copier mode, a print job may be
> interrupted by pressing the 'interrupt print job'
> soft key associated with the display of Fig. 4D
> (step 360). In response to pressing the interrupt
> soft key (decision block 370) the display of Fig. 4I
> is called up and displayed (step 372) and will continue
> until the current set of the interrupted job is completed.
> Upon completion of the current set, the print job interrupt
> mode is established and the copier/printer is ready for
> the walk-up user to perform a copy job ***and such is indicated***
> ***in the display of Fig. 4J which is now displayed (step 374).*** (Emphasis added)

What occurs next (assuming that the walk-up user desires to interrupt the ongoing current job) is that the system moves into the subroutine X (Fig. 3F) at decision step 376. Thus, as indicated by Beaudet at Column 9 lines 12-15:

> A timer subroutine (see Fig. 3F) begins timing of the idle state
> of the copier/printer (subroutine X, step 376). The timer
> may be programmable from say 0 to several minutes, or
> can be a fixed time of say 5 minutes and is established by
> setting of the key operator.

The Beaudet text unfortunately does not specifically describe the entire flow of the logic diagrams provided as part of the Beaudet disclosure. Nevertheless, following the logic diagrams provided in the Beaudet reference, Applicants respectfully submit that it is clearly reveals that if the time period (TP) is set to 0 as the Examiner has suggested, the system returns to decision step 360 whereat the display indicates that the original copy/print job is being printed with a certain number of sets and a certain time period to go. In other words, at the point in time referred to by the Examiner's example an interrupting job has never been started at all, much less being capable of forming the basis of a display equivalent to that of Fig. 4D (or 4I which could not be reached from the subroutine except via the display of Fig. 4D and the pressing of the soft key for the affirmative start of an interrupt job). In this regard, it is again noted that the output of the subroutine X entered as a result of a request for a current job interrupt (see Beaudet, Fig. 3B2) is the same for a time out as it is for a current job resume command, and that at TP = 0 time out (i.e., Time Expired) occurs immediately.

Further, even if it were to be assumed that the time period for the X subroutine was set at a positive value and a copy job was started during the so set positive time interval, the subroutine X shown in Fig. 3F indicates that the system in that situation branches off to D as shown in Fig 3D. Fig, 3D clearly indicates that while the interrupt job is being processed and displayed, the display of Fig. 4J (associated with the interrupted job "A" is displayed indicating that the system is in "Print Job Interrupt Mode" – not a display similar to either Fig. 4D or Fig 4I associated with the interrupting print job "B" as the Examiner has suggested.

Accordingly, as far as Applicants have been able to understand from the text and drawings of the Beaudet reference, the Beaudet reference simply does not support either the example that the Examiner has postulated or the result that the Examiner has asserted based thereon.

Instead, starting from the display shown in Fig. 4I while a currently printing job is being printed, it is made clear that an interrupting job has been requested, that the time remaining until that interrupt can occur is 103 seconds, that the current job is No. 1234 and the printer is currently printing set 124 out of 200 (see logic step 372 in Fig. 3B2). At the end of the 103 seconds shown in Fig, 4I, the system moves to logic step 374 (Fig. 3B2) and the display of Fig. 4J is displayed. From that point, the system enters subroutine X (Fig. 3F) wherein a time TP is set (preset?) and during the time TP either the current job is affirmatively resumed, an interrupting job is started, or the subroutine times out and the current job is resumed. Of these, only the affirmative start of an interrupting job is of importance to the Examiner's position as it relates to the present application.

The affirmative start of an interrupting job directs the system into the logic diagram shown in Fig. 3D. In that case, the interrupting job is downloaded and copied followed by the establishment of a time period for the system to be maintained in copier mode prior to reverting to start such that additional interrupting jobs may be processed or the original job resumed (see, for example Column 9, lines 42-60, of the Beaudet reference). During the entire sequence shown in Fig. 3D the display referred to by the Examiner displays the display of 4J associated with the current job that has been interrupted (i.e., "…the print job interrupt mode is established and the computer/printer is ready for the walk-up user to perform a copy job *and such is indicated by the display of Fig. 4J which is now displayed* (Beaudet, Column 9, lines 8-12), meaning the display of Fig. 4J displayed throughout the time period of subroutine X (Fig. 3F) and the logic diagram shown in Fig. 3D.
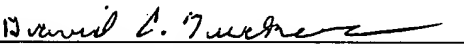
Hence, Applicants respectfully submit that the Examiner's conception that each interrupting job evidences all of the displays shown in Figs. 4A to 4K of the Beaudet reference in the same sequence as Beaudet describes as being applicable to the current ongoing job *so as to thereby provide both the time until an interruption of the initial interruption as well as the time until the end of each of possible plural interrupting jobs* is respectfully submitted not to be supportable on the present record.

Accordingly, in view of the foregoing clarifying Amendment and the above substantive discussion of the Beaudet reference upon which the Examiner has primarily relied in support of his currently outstanding rejections of the claims of this application, reconsideration and allowance in response to this communication are respectfully requested.

Applicants also believe that additional fees are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

Date: January 22, 2007

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SIGNATURE OF PRACTITIONER

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